Buffered Input/Output

Opening User Space Buffer for File

Prototypes

- FILE* fopen (const char * pathname, const char * mode);

Mode Values

- r - read
- w - write and truncate
- a - append write
- + - give second mode too (used with r or w)

Working With User Space Buffer

Prototypes

- size_t fread(void *ptr, size_t size, size_t count, FILE *stream);
- size_t fwrite(const void *ptr, size_t size, size_t count, FILE *stream);
- char *fgets(char *str, int n, FILE *stream);
- int fputs(const char *str, FILE *stream);
- int fgetc(FILE *stream);
- int fputc(int char, FILE *stream);
- int fscanf(FILE *stream, const char *format, ...);
- int fprintf(FILE *stream, const char *format, ...);

Error Handling of User Space Buffers

Prototypes

- int feof(FILE *stream);
- int ferror(FILE *stream);
- void clearerr(FILE *stream);

User Space Buffer Positioning for Buffered I/O

Prototype

- void rewind(FILE *stream);
- long int ftell(FILE *stream);
- int fseek(FILE *stream, long int offset, int source_position);

Source Position Values

- SEEK_SET
- SEEK_CUR
- SEEK_END

Closing and Synchronizing User Space Buffer

Prototypes

- int fflush(FILE *stream);
- int fclose(FILE *stream);

Set Specifications for User Space Buffer

Prototypes

- int setvbuf(FILE *stream, char *buffer, int mode, size_t size);

Mode Values

- _IOFBF
- _IOLBF
- _IONBF